

What is claimed is:

1. A power transmission device for transmitting rotational power from an engine to a drive shaft of an engine accessory, comprising:

5 an annular hub member pivotally driven by the engine; and

a connecting rod incorporated into between the drive shaft of the engine accessory and the hub member, made of material the mechanical strength of which  
10 is higher than that of the hub member, wherein

the connecting rod includes a first screw portion screwed and fixed to an inner circumferential screw portion formed on an inner circumference of the hub member and also includes a second screw portion screwed  
15 and fixed to an outer circumferential screw portion formed on an outer circumference of a forward end portion of the drive shaft.

2. A power transmission device according to claim 1, wherein

20 the hub member includes a cylindrical boss portion, which is provided on the inner circumferential side of the hub member, for fastening the hub member to the connecting rod,

the connecting rod includes a first  
25 engaging portion engaged with the inner circumference of the cylindrical boss portion and also includes a second engaging portion, the profile of which is a cylinder having a bottom, engaged with an outer circumference of the drive shaft,

30 the first screw portion is a male screw portion provided on an outer circumference of the first engaging portion, screwed to the inner circumferential screw portion, and

the second screw portion is a female screw  
35 portion provided on an inner circumference of the second engaging portion, screwed to the outer circumferential screw portion.

3. A power transmission device according to claim 1, wherein

the hub member includes a cylindrical boss portion, which is provided on the inner circumferential side, to be connected with the connecting rod,

the connecting rod includes a first receiving mount face, the profile of which is substantially annular, engaging with the cylindrical boss portion so as to prevent the cylindrical boss portion from moving to one side in the axial direction, with which one end face of the cylindrical boss portion in the axial direction is closely contacted, and

the connecting rod also includes a second receiving mount face, the profile of which is substantially annular, engaging with the drive shaft so as to prevent the drive shaft from moving to the other side in the axial direction, with which the other end face of the drive shaft in the axial direction is closely contacted.

4. A power transmission device according to claim 1, wherein

the connecting rod includes a locking portion for preventing the connecting rod from rotating when the hub member is rotated in a direction in which the hub member is loosened with respect to the connecting rod, and

when the hub member is detached from the connecting rod, the locking portion of the connecting rod is fixed with a holding tool and then the hub member is rotated with a fastening tool in a direction in which the hub member is loosened with respect to the connecting rod.

5. A power transmission device according to claim 1, wherein

the drive shaft of the engine accessory includes a locking portion for preventing the drive shaft from rotating when the connecting rod is rotated in a

direction in which the connecting rod is loosened with respect to the drive shaft, and

when the connecting rod is detached from the drive shaft, the locking portion of the drive shaft  
5 is fixed with a holding tool and then the connecting rod is rotated with a fastening tool in a direction in which the connecting rod is loosened with respect to the drive shaft.

6. A power transmission device according to claim  
10 1, further comprising:

an input disk pivotally driven by the engine,

a hub member, which is an output disk, rotating in a predetermined rotational direction when the  
15 hub member receives rotational power from the engine; and

a torque limiter mechanism for shutting off a power transmission path from the input disk to the output disk when an overload torque is generated on the output disk.

20 7. A power transmission device according to claim 6, wherein

the output disk includes a metallic disk, the profile of which is a substantially annular plate, fastened and fixed to the first screw portion of the  
25 connecting rod and also includes a resin disk, the profile of which is a substantially annular plate, integrally formed on the outer circumferential side of the metallic disk,

the metallic disk includes a cylindrical  
30 boss portion provided on the inner circumferential side, fastened to the connecting rod, and

the inner circumferential screw portion of the hub member is provided on the inner circumference of the cylindrical boss portion of the metallic disk.

35 8. A power transmission device according to claim 6, wherein

the input disk includes a recessed

engaging portion or a protruding engaging portion, to which at least a side end of the output disk is open, arranged in parallel with the drive shaft,

5                   the output disk includes a protruding engaging portion or a recessed engaging portion loosely engaging with the recessed portion or the protruding portion, and

10                   an elastic body made of rubber for absorbing a fluctuation of torque transmitted from the input disk to the output disk is interposed between an inner wall face of the recessed engaging portion and an outer wall face of the protruding engaging portion.

9. A power transmission device according to claim 1, wherein

15                   the engine accessory is one or more of the compressor for circulating refrigerant in a refrigerating cycle, the alternator for electrically charging an electric power source mounted on a vehicle, the water pump for circulating cooling water in a cooling water circuit, the hydraulic pump for generating hydraulic pressure in a hydraulic control circuit or the lubricating circuit and the blower for generating an air current.

20